BRUHATH BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of Work: Estimate for Improvements to Roads and footpath Vinayaka Layout 1st Stage, Vinayaka Layout 2nd Stage and Amrutnagara in Ward No. 07, Byatarayanapura.

	007-18-000009	14th Finance P-3296			Estimate Cost:			9900000.00	
Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary soil** involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
	Desilting of Drains								
	Vinayaka layout 1st B'Cross		2	66.00	0.45	0.45	26.73		
	Vinayaka layout 1st Cross		2	78.00	0.45	0.45	31.59		
	Vinayaka layout 2st Cross		2	78.00	0.45	0.45	31.59		
	Vinayaka layout 3rd Cross		2	108.00	0.45	0.45	43.74		
	Vinayaka layout 4th Cross		2	106.00	0.45	0.45	42.93		
	Vinayaka layout 5th Cross opp road		2	68.00	0.45	0.45	27.54		
	Vinayaka layout 6th Cross opp road		2	65.00	0.45	0.45	26.33		
	For New Drain RCC								
	Vinayaka layout main road		2	288.00	1.00	0.90	518.40		
	"		2	127.00	0.80	0.80	162.56		
	"		2	68.00	0.80	0.80	87.04		
	Culvert Vinayaka layout 1st B'Cross		1	6.00	2.00	1.20	14.40		
	Culvert Vinayaka layout 2st B'Cross		1	6.00	2.00	1.20	14.40		
	For Road Work								
	Vinayaka layout 1st B'Cross		5	3.20	2.50	0.20	8.00		
	Road Cutting		6	0.60	6.00	0.20	4.32		
	Vinayaka layout 1st Cross		4	3.50	2.20	0.20	6.16		
			7	0.60	6.00	0.20	5.04		
	Vinayaka layout 2st B'Cross		4	4.00	2.50	0.20	8.00		
			5	0.60	6.00	0.20	3.60		
	Vinayaka layout 2st Cross		5	3.80	3.50	0.20	13.30		
			6	0.60	6.00	0.20	4.32		
	Vinayaka layout 3rd B'Cross		5	3.20	2.80	0.20	8.96		
			7	0.60	6.00	0.20	5.04		
	"		3	2.50	2.00	0.20	3.00		
			2	0.60	6.00	0.20	1.44		
	Vinayaka layout 3rd Cross		1	20.00	6.50	0.20	26.00		
			5	2.50	3.00	0.20	7.50		
			6	0.60	6.00	0.20	4.32		
	Vinayaka layout 4th B'Cross		8	3.50	3.00	0.20	16.80		
			6	0.60	6.00	0.20	4.32		
	Vinayaka layout 4th Cross		8	3.50	2.50	0.20	14.00		

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			6	0.60	6.00	0.20	4.32		
	Vinayaka layout 5th Cross opp road		2	2.20	2.00	0.20	1.76		
			4	0.60	6.00	0.20	2.88		
	Vinayaka layout 6th Cross opp road		3	3.50	2.80	0.20	5.88		
			4	0.60	6.00	0.20	2.88		
	"		1	15.00	5.00	0.20	15.00		
	Vinayaka layout main road		1	25.00	7.00	0.20	35.00		
			20	3.50	3.00	0.20	42.00		
			12	0.60	6.00	0.20	8.64		
	"		1	25.00	5.50	0.20	27.50		
			5	3.80	3.20	0.20	12.16		
			8	0.60	0.60	0.20	0.58		
	"		1	15.00	4.90	0.20	14.70		
			5	3.20	3.50	0.15	8.40		
			5	0.60	6.00	0.15	2.70		
	Basic Rate	82.00					**1355.76**	199.36	**270291.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		188.08							
	Area Weightage @ 6%	11.28							
	Total	**199.36**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
	Vinayaka layout 1st B'Cross		2	66.00		1.35	178.20		
	Vinayaka layout 1st Cross		2	78.00		1.35	210.60		
	Vinayaka layout 2st Cross		2	78.00		1.35	210.60		
	Vinayaka layout 3rd Cross		2	108.00		1.35	291.60		
	Vinayaka layout 4th Cross		2	106.00		1.35	286.20		
	Vinayaka layout 5th Cross opp road		2	68.00		1.35	183.60		
	Vinayaka layout 6th Cross opp road		2	65.00		1.35	175.50		
							1536.30		
	Damaged Slabs @ 15%						230.45		
	Basic Rate	76.00					**1305.86**	80.56	**105200.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
	Consider 15% of Total Qty of Item No. 2		Qty Vide Item No. 02				230.45		
	Basic Rate	628.00					**230.45**	665.68	**153403.00**
	Area Weightage @ 6%	37.68							

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Total	**665.68**							
	KSRB 4-1.2 : Providing and laying in position **plain cement concrete of mix 1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation** including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **(P.No. 12/I.No. 4.2 of CSR 2016-17)**								
	For Drain Work								
	Vinayaka layout main road		2	288.00	0.90	0.15	77.76		
	"		2	127.00	0.80	0.15	30.48		
	"		2	68.00	0.80	0.15	16.32		
	Culvert Vinayaka layout 1st Cross		1	6.00	2.00	0.15	1.80		
	Culvert Vinayaka layout 2st B'Cross		1	6.00	2.00	0.15	1.80		
	Basic Rate	5046.00					**128.16**	5348.76	**685497.00**
	Area Weightage @ 6%	302.76							
	Total	**5348.76**							
5	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in **foundation with cement mortar 1:6, stone** hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.6. PWD SR 2016-17**								
	Culvert Vinayaka layout 1st Cross		2	6.00	0.60	0.45	3.24		
	Culvert Vinayaka layout 2st B'Cross		2	6.00	0.60	0.45	3.24		
	Basic Rate	4187.00					**6.48**	4438.22	**28760.00**
	Area Weightage @ 6%	251.22							
	Total	**4438.22**							
6	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.9, PWD SR 2016-17**								
	Culvert Vinayaka layout 1st Cross		2	6.00	0.45	0.45	2.43		
	Culvert Vinayaka layout 2st B'Cross		2	6.00	0.45	0.45	2.43		
	Basic Rate	5005.00					**4.86**	5305.30	**25784.00**
	Area Weightage @ 6%	300.30							
	Total	**5305.30**							
7	KSRB 15.1.3 Providing **ruled pointing** to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.3, PWD SR 2016-17**	Sqm							
	Culvert Vinayaka layout 1st Cross		2	6.00		0.90	10.80		

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Culvert Vinayaka layout 2st B'Cross		2	6.00		0.90	10.80		
	Basic Rate	98.00					**21.60**	103.88	**2244.00**
	Area Weightage @ 6%	5.88							
	Total	**103.88**							
8	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							
	Vinayaka layout main road		4x2	288.00		0.60	1382.40		
	"		4x2	127.00		0.45	457.20		
	"		4x2	68.00		0.45	244.80		
	Basic Rate	293.00					**2084.40**	310.58	**647373.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							
9	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Coping Culvert Vinayaka layout 1st Cross		1	6.00	1.80	0.10	1.08		
	Culvert Vinayaka layout 2st B'Cross		1	6.00	1.80	0.10	1.08		
	Ramp Culvert Vinayaka layout 1st Cross		2	6.00	1.00	0.15	1.80		
	Culvert Vinayaka layout 2st B'Cross		2	6.00	1.00	0.15	1.80		
	Basic Rate	5441.00					**5.76**	5767.46	**33221.00**
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
10	KSRB 4.2.2 : Providing and laying in position **reinforced cement concrete of Design mix M20** with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works **in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc.,** including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 **Page No. 12, Item No. 4.11, PWD SR 2016-17**	Cum							
	Bottom Concrte								

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Vinayaka layout main road		2	288.00	0.90	0.15	77.76		
	"		2	127.00	0.75	0.15	28.58		
	"		2	68.00	0.75	0.15	15.30		
	Side Wall								
	Vinayaka layout main road		2x2	288.00	0.15	0.60	103.68		
	"		2x2	127.00	0.15	0.45	34.29		
	"		2x2	68.00	0.15	0.45	18.36		
	Basic Rate	6011.00					**277.97**	6371.66	**1771098.00**
	Area Weightage @ 6%	360.66							
	Total	**6371.66**							
11	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **- TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**								
	Consider 60 Kg/Cum		0.06	277.97			16.68		
	Basic Rate	60607.00					**16.68**	64243.42	**1071445.00**
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
12	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		10	1.80	0.60		10.80		
			10	1.80	0.60		10.80		
							21.60	5125.00	**110700.00**
13	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Covering Slab		960	0.60	0.90		518.40		
			422	0.60	0.75		189.90		
			226	0.60	0.75		101.70		
							810.00	1820.56	**1474654.00**

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
14	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 158 / Item No. 20.18, PWD SR 2016-17**	Cum							
	Vinayaka layout 1st B'Cross		5	3.20	2.50	0.20	8.00		
	Road Cutting		6	0.60	6.00	0.20	4.32		
	Vinayaka layout 1st Cross		4	3.50	2.20	0.20	6.16		
			7	0.60	6.00	0.20	5.04		
	Vinayaka layout 2st Cross		5	3.80	3.50	0.20	13.30		
			6	0.60	6.00	0.20	4.32		
	Vinayaka layout 3rd Cross		1	20.00	6.50	0.15	19.50		
			5	2.50	3.00	0.15	5.63		
			6	0.60	6.00	0.15	3.24		
	Vinayaka layout 4th Cross		8	3.50	2.50	0.15	10.50		
			6	0.60	6.00	0.15	3.24		
	Vinayaka layout 5th Cross		2	2.20	2.50	0.15	1.65		
			4	0.60	6.00	0.15	2.16		
	"		5	3.50	3.20	0.15	8.40		
			4	0.60	6.00	0.15	2.16		
	Vinayaka layout 6th Cross opp road		1	15.00	5.00	0.20	15.00		
			4	4.00	2.50	0.20	8.00		
			5	0.60	6.00	0.20	3.60		
	Vinayaka layout main road		1	25.00	7.00	0.20	35.00		
			20	3.50	3.50	0.20	49.00		
			12	0.60	6.00	0.20	8.64		
	"		1	25.00	5.50	0.20	27.50		
			5	3.80	3.50	0.20	13.30		
			8	0.60	0.60	0.20	0.58		
	"		1	15.00	4.90	0.20	14.70		
			5	3.20	3.50	0.20	11.20		
			5	0.60	6.00	0.20	3.60		
	Basic Rate	1668.00					**287.73**	1768.08	**508731.00**
	Area Weightage @ 6%	100.08							
	Total	**1768.08**							
15	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **Page No. 161 / Item No. 21.7m PWD SR 2016-17**	Sqm							

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Vinayaka layout 1st B'Cross		1	66.00	6.00		396.00		
	Vinayaka layout 1st Cross		1	78.00	6.00		468.00		
	Vinayaka layout 2st Cross		1	78.00	6.60		514.80		
	Vinayaka layout 3rd Cross		1	108.00	6.50		702.00		
	Vinayaka layout 4th Cross		1	106.00	6.60		699.60		
	Vinayaka layout 5th Cross opp road		1	68.00	5.00		340.00		
	Vinayaka layout 6th Cross opp road		1	65.00	5.00		325.00		
	Vinayaka layout main road		1	288.00	7.00		2016.00		
	"		1	127.00	5.50		698.50		
	"		1	68.00	4.90		333.20		
	Basic Rate	11.00					**6493.10**	11.66	**75710.00**
	Area Weightage @ 6%	0.66							
	Total	**11.66**							
16	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	Cum							
	Vinayaka layout 1st B'Cross		1	66.00	6.00	0.040	15.84		
	Vinayaka layout 1st Cross		1	78.00	6.00	0.040	18.72		
	Vinayaka layout 2st Cross		1	78.00	6.60	0.040	20.59		
	Vinayaka layout 3rd Cross		1	108.00	6.50	0.040	28.08		
	Vinayaka layout 4th Cross		1	106.00	6.60	0.040	27.98		
	Vinayaka layout 5th Cross opp road		1	68.00	5.00	0.040	13.60		
	Vinayaka layout 6th Cross opp road		1	65.00	5.00	0.040	13.00		
	Vinayaka layout main road		1	288.00	7.00	0.040	80.64		
	"		1	127.00	5.50	0.040	27.94		
	"		1	68.00	4.90	0.040	13.33		
	Basic Rate	6683.00					**259.72**	7083.98	**1839880.00**
	Area Weightage @ 6%	400.98							
	Total	**7083.98**							
17	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **Page No. 184, Item No. 24.15 PWD SR 2016-17**	Sqm							

Sl No.	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Vinayaka layout 1st B'Cross		2	66.00	0.10		13.20		
	Vinayaka layout 1st Cross		2	78.00	0.10		15.60		
	Vinayaka layout 2st Cross		2	78.00	0.10		15.60		
	Vinayaka layout 3rd Cross		2	108.00	0.10		21.60		
	Vinayaka layout 4th Cross		2	106.00	0.10		21.20		
	Vinayaka layout 5th Cross opp road		2	68.00	0.10		13.60		
	Vinayaka layout 6th Cross opp road		2	65.00	0.10		13.00		
	Vinayaka layout main road		2	288.00	0.10		57.60		
	"		2	127.00	0.10		25.40		
	"		2	68.00	0.10		13.60		
	Basic Rate	512.00					**210.40**	542.72	**114188.00**
	Area Weightage @ 6%	30.72							
	Total	**542.72**							
	Sub Total								**8918179.00**
	Tender Premium @ 10%								**891818.00**
	Third Party Inspection Charges @ 1%								**89182.00**
	Miscellaneous and unforeseen charges	LS							**821.00**
								Total	**9900000.00**

Rupees Ninety Nine Lakh(s) Only

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2016-17.
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

M.D.
Assistant Engineer
Ward No. 07

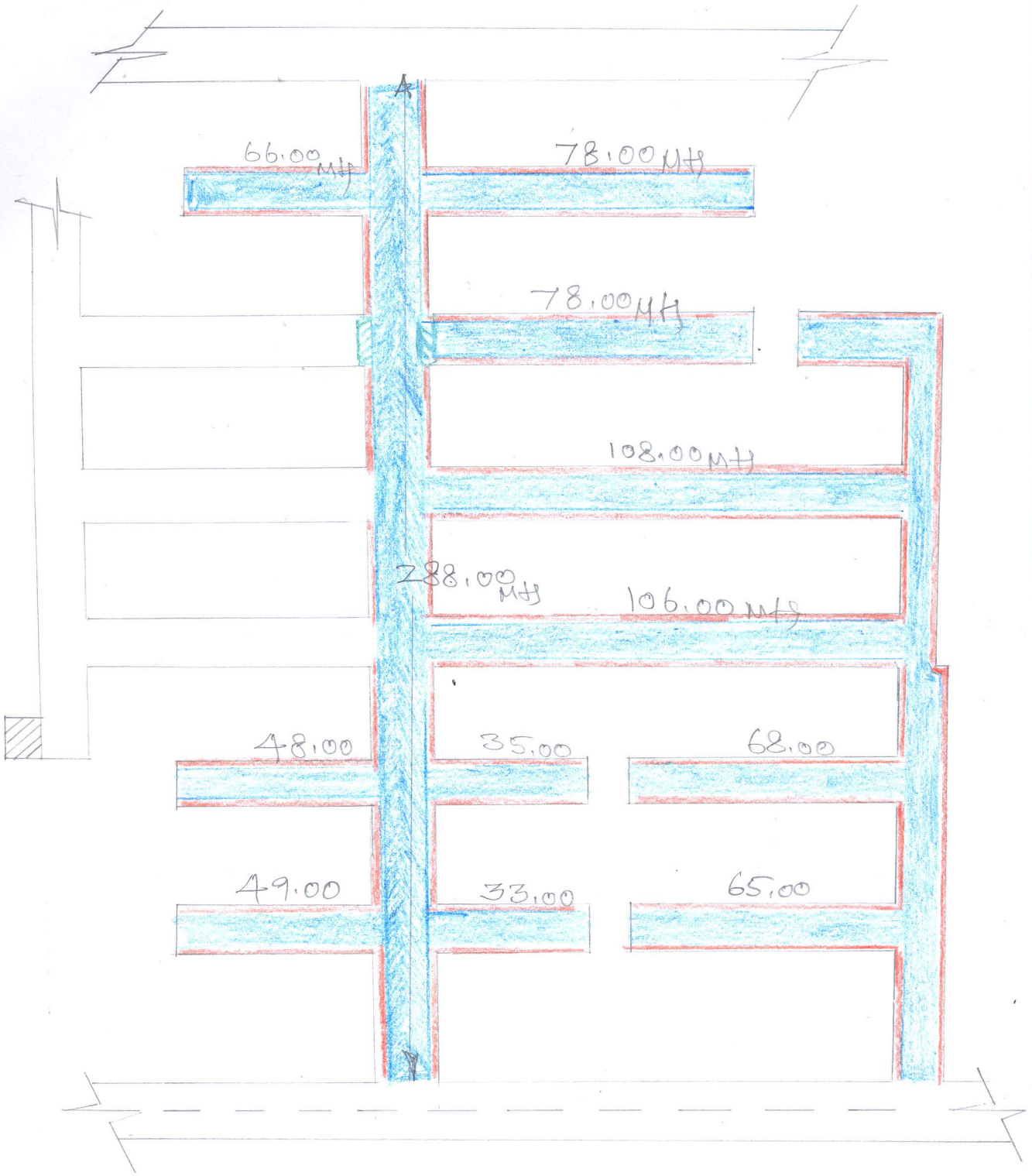
Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Kodigehalli Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Ninety Nine lakhs only
Head of A/c. P-3296
Div. Ref. No. 169/12-18 Date. 12/01/18
AE
EE(BTP) 12/1

Technical Sanction
Accorded For Ninetynine lakhs only
Head of A/C. P 3296
CER NO TS 511/TA-18 Dt 12.01.18
TA CE (YNK)

Name of Work: Improvements to Roads and footpath Vinayaka Layout 1st Stage, Vinayaka Layout 2nd Stage and Amrutnagara in Ward No. 07, Byatarayanapura.



Assistant Engineer
Ward No. 07

Assistant Executive Engineer
Kodigehalli Sub Division